of heredity was purely speculative, and has been disproven. Unlike Darwin, he was loath to admit of factors other than natural selection in the origin of species."

In 1900 strong support for Weismann's claim that acquired characteristics are not inherited came from an unexpected source. Three European biologists independently discovered that the progeny of hybrids inherit the characteristics of their ancestors in accordance with a definite formula. Examining the literature to see whether such a theory had already been advanced, they found that thirty-four years earlier, in 1866, Gregor Mendel, an Austrian monk, had described a series of experiments that had led him to the same conclusions. Mendel had selected pea plants differing from one another in nearly twenty specific characteristics. Carefully crossing various plants, he observed how the particular features reappeared in succeeding generations, and came to the conclusion that the number of reappearances of each particular characteristic could be accurately predicted for each generation, according to a definite formula, though the various characteristics might be combined in numerous ways. Copies of the journal containing Mendel's report had been available in libraries in Europe and in America, but it had hardly been noticed.

Since further experiments confirmed these results, Mendelism was soon widely accepted among biologists, and this greatly furthered the acceptance of that part of Weismann's theory which asserted that acquired characteristics are not transmitted.

MUTATIONS

At first it seemed that these discoveries might have struck a deathblow to the whole theory of natural selection, or survival of the fittest. However, it was soon discovered that though the gene (the name subsequently given to the individual factor responsible for each particular characteristic) is usually very stable, at rare intervals sudden changes occur, which came to be designated